



1646 JP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Tupler et al.
Serial No. : 10/686,491
Filed : October 14, 2003
Title : METHODS OF DETECTING AND TREATING FACIOSCAPULOHUMERAL
MUSCULAR DYSTROPHY

Art Unit : 1646
Examiner : Unknown

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

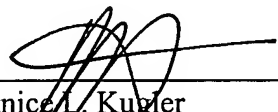
Applicants submit the references listed on the attached form PTO-1449.

This statement is being filed before the receipt of a first Office Action on the merits.

Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney
Docket No. 07917-180001.

Respectfully submitted,

Date: 11-30-2004



Janice L. Kugler
Reg. No. 50,429

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

20978105.doc

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

November 30, 2004
Date of Deposit

Signature
Scott Barrett
Typed or Printed Name of Person Signing Certificate

Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 07917-180001	Application No. 10/686,491
	Applicant Tupler et al.			
	Filing Date October 14, 2003		Group Art Unit	

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	A1						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	B1							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	C1	Bauer et al., "Adenine nucleotide translocase-1, a component of the permeability transition pore, can dominantly induce apoptosis," J. Cell Biol. 27:1493-502 (1999)
	C2	Bennett et al., "Susceptibility to human type 1 diabetes at <i>IDDM2</i> is determined by tandem repeat variation at the insulin gene minisatellite locus," Nat. Genet. 9:284-92 (1995)
	C3	Blair et al., "A transcript map encompassing a susceptibility locus for bipolar affective disorder on chromosome 4q35," Mol. Psychiatry, 7:867-73(2002)
	C4	Chung et al., "Characterization of the chicken β -globin insulator," Proc. Natl. Acad. Sci. USA 94:575-80 (2002)
	C5	Clark et al., "Analysis of the organisation and localisation of the FSHD-associated tandem array in primates: implications for the origin and evolution of the 3.3 kb repeat family," Chromosoma 105:180-89 (1996)
	C6	Dorner and Schultheiss, "The myocardial expression of the adenine nucleotide translocator isoforms is specifically altered in dilated cardiomyopathy," Herz 25:176-80 (2000)
	C7	Dunger et al., "Association of the INS VNTR with size at birth. ALSPAC study team. Avon longitudinal study of pregnancy and childhood," Nat. Genet. 19:98-100 (1998)
	C8	Gabriels et al., "Nucleotide sequence of the partially deleted D4Z4 locus in a patient with FSHD identifies a putative gene within each 3.3 kb element," Gene 236:25-32 (1999)
	C9	Hanakahi et al., "Nucleolin is one component of the B cell-specific transcription factor and switch region binding protein, LR1," Proc. Natl. Acad. Sci. USA 94:3605-10 (1999)
	C10	Hewitt et al., "Analysis of the tandem repeat locus D4Z4 associated with facioscapulohumeral muscular dystrophy," Hum. Mol. Genet. 3(8):1287-95 (1994)
	C11	Hsu et al., "Application of chromosome 4q35- qter marker (pFR-1) for DNA rearrangement of facioscapulohumeral muscular dystrophy patients in Taiwan," J. Neurol. Sci. 149:73-79 (1997)
	C12	Kaukonen et al., "Role of adenine nucleotide translocator 1 in mtDNA maintenance," Science 289:782-85 (2000)
	C13	Kennedy et al., "The minisatellite in the diabetes susceptibility locus IDDM2 regulates insulin transcription," Nat. Genet. 9:293-98 (1995)
	C14	Krontiris et al., "An association between the risk of cancer and mutations in the HRAS1 minisatellite locus," N. Engl. J. Med. 329:517-23 (1993)
	C15	Lehming et al., "Chromatin components as part of a putative transcriptional repressing complex," Proc. Natl. Acad. Sci. USA 95:7322-26 (1998)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 07917-180001	Application No. 10/686,491
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Tupler et al.	
		Filing Date October 14, 2003	Group Art Unit

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	C16	Lunt, "44th ENMC international workshop: facioscapulohumeral muscular dystrophy: molecular studies," Naarden, The Netherlands. Neuromuscul. Disord. 8:126-30 (1996)
	C17	Lunt et al., "Correlation between fragment size at D4F104S1 and age at onset or at wheelchair use, with a possible generational effect, accounts for much phenotypic variation in 4q35-facioscapulohumeral muscular dystrophy (FSHD)," Hum. Mol. Genet. 4:951-58 (1995)
	C18	Lyle et al., "The FSHD associated repeat, D4Z4, is a member of a dispersed family of homeobox-containing repeats, subsets of which are clustered on the short arms of the acrocentric chromosomes," Genomics 28:389-97 (1995)
	C19	Morcos, "Achieving efficient delivery of morpholino oligos in cultured cells," Genesis 30:94-102 (2001)
	C20	Napoli et al., "A novel missense adenine nucleotide translocator-1 gene mutation in a Greek adPEO family," Neurology 57:2295-2308 (2001)
	C21	Pryde and Louis, "Limitations of silencing at native yeast telomeres," EMBO J. 18:2538-50 (1999)
	C22	Renauld et al., "Silent domains are assembled continuously from the telomere and are defined by promoter distance and by SIR3 dosage," Genes Dev. 7:1133-1145 (1993)
	C23	Ricci et al., "Progress in the molecular diagnosis of facioscapulohumeral muscular dystrophy and correlation between the number of KpnI repeats at the 4q35 locus and clinical phenotype," Ann. Neurol. 1999 Jun;45(6):751-7.
	C24	Sandri et al., "Caspase 3 expression correlates with skeletal muscle apoptosis in Duchenne and facioscapulohumeral muscular dystrophy. A potential target for pharmacological treatment?" J. Neuropathol. Exp. Neurol. 60:302-312 (2001)
	C25	Sarfarazi et al., "Regional mapping of facioscapulohumeral muscular dystrophy gene on 4q35: combined analysis of an international consortium," Am. J. Hum. Genet. 51(2):396-403 (1992)
	C26	Schulz et al., "Identification of nucleolin as a glucocorticoid receptor interacting protein," Biochem. Biophys. Res. Commun. 280:476-80 (2001)
	C27	Tawil et al., "Evidence for anticipation and association of deletion size with severity in facioscapulohumeral muscular dystrophy," The FSH-DY Group. Ann. Neurol. 39:744-748 (1996)
	C28	Tews and Goebel, "DNA-fragmentation and expression of apoptosis-related proteins in muscular dystrophies," Neuropathol. Appl. Neurobiol. 23:331-338 (1997)
	C29	Thomas and Travers, "HMG1 and 2, and related 'architectural' DNA-binding proteins," Trends Biochem. Sci. 3:167-174 (2001)
	C30	Thomas and Seto, "Unlocking the mechanisms of transcription factor YY1: are chromatin modifying enzymes the key?" Gene 236:197-208 (1999)
	C31	Tupler et al., "Monosomy of distal 4q does not cause facioscapulohumeral muscular dystrophy," J. Med. Genet. 33:366-70 (1993)
	C32	Tupler et al., "Profound misregulation of muscle-specific gene expression in facioscapulohumeral muscular dystrophy," Proc. Natl. Acad. Sci. USA 96:12650-54 (1999)
	C33	van Deutekom et al., "Identification of the first gene (FRG1) from the FSHD region on human chromosome 4q35," Hum. Mol. Genet. 5:581-90 (1996)
	C34	van Geel et al., "The FSHD region on human chromosome 4q35 contains potential coding regions among pseudogenes and a high density of repeat elements," Genomics 61:55-65 (1999)
	C35	van Geel et al., "Identification of a novel beta-tubulin subfamily with one member (TUBB4Q) located near the telomere of chromosome region 4q35," Cytogenet. Cell Genet. 88:316-21 (2000)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 07917-180001	Application No. 10/686,491
Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Tupler et al.	
		Filing Date October 14, 2003	Group Art Unit
(37 CFR §1.98(b))			

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	C36	Wijmenga et al., "Chromosome 4q DNA rearrangements associated with facioscapulohumeral muscular dystrophy," Nat. Genet. 2(1):26-30 (1992)
	C37	Winokur et al., "The DNA rearrangement associated with facioscapulohumeral muscular dystrophy involves a hetero-chromatin-associated repetitive element: implications for a role of chromatin structure in the pathogenesis of the disease," Chromosome Res. 2:225-34 (1994)
	C38	Xie et al., "Human hematopoietic cell specific nuclear protein MNDA interacts with the multifunctional transcription factor YY1 and stimulates YY1 DNA binding," J. Cell. Biochem. 70:489-506 (1998)
	C39	Yant et al., "High affinity YY1 binding motifs: identification of two core types (ACAT and CCAT) and distribution of potential binding sites within the human beta globin cluster," Nucleic Acids Res. 23(21):4353-62 (1995)
	C40	Ying et al., "Nucleolin, a novel partner for the Myb transcription factor family that regulates their activity," J. Biol. Chem. 275:4152-58 (2000)
	C41	Zatz et al., "High proportion of new mutations and possible anticipation in Brazilian facioscapulohumeral muscular dystrophy families," Am. J. Hum. Genet. 56:99-105 (1995)

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	